



# Material Safety Data Sheet

## JP-8 AVIATION TURBINE FUEL (Mil-T-83133)

August 3, 2001

MSDS #: 169130

Revision: 1

CHEVRON PHILLIPS CHEMICAL COMPANY LP  
10001 Six Pines Drive  
The Woodlands, Tx 77380

### PHONE NUMBERS

EMERGENCY: (800) 231-0623 or  
(510) 231-0623 (International)  
EMERGENCY RESPONSE (ASIA): 800-AlertSGS  
or 800-25378747 or 65-6542-9595  
TRANSPORTATION (24 HR): CHEMTREC  
(800) 424-9300 OR (703) 527-3887  
Technical Services: (832) 813-4862  
For Additional MSDSs: (800) 852-5530

### A. Product Identification

Synonyms: Aviation Turbine Fuel  
Chemical Name: Mixture  
Chemical Family: Hydrocarbon  
Chemical Formula: Mixture  
CAS Reg. No.: 8008-20-6  
Product No.: RF3649

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

### B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Kerosene	8008-20-6	99.8-99.9	NE	NE
includes: Paraffinic Hydrocarbons,	Various	approx 50	NE	NE
includes: n-Octane	111-65-9	approx 1.0	300 ppm	300 ppm
n-Nonane	111-84-2	approx 3.0	200 ppm	200 ppm

Naphthenes	Various	approx 33	NE	NE
Aromatic Hydrocarbons includes	Various	approx 17	NE	NE
Benzene	71-43-2	approx 0.8	10 ppm*	10 ppm
Toluene	108-88-3	approx 1.0	100 ppm	100 ppm
p-Xylene	106-42-3	approx 1.0	100 ppm	100 ppm
m-Xylene	108-38-3	approx 3.0	100 ppm	100 ppm
o-Xylene	95-47-6	approx 1.4	100 ppm	100 ppm
1,3,5-Trimethylbenzene	108-67-8	approx 1.4	25 ppm	25 ppm
1,2,4-Trimethylbenzene	95-63-6	approx 3.8	25 ppm	25 ppm
1,2,3-Trimethylbenzene	526-73-8	approx 1.0	25 ppm	25 ppm
PFA 55 MB(2-Methoxyethanol)	109-86-4	0.1-0.2	25 ppm(s)	5 ppm(s)

\* Operations covered by the Benzene Standard, 29 CFR 1910.1028, will have a 1 ppm 8 hour TWA and a 5 ppm STEL.

(s) Skin Notation: Chemical is absorbed through the skin in liquid or vapor phase.

## C. Personal Protection Information

Ventilation: Use adequate ventilation to control below recommended exposure levels.

Respiratory Protection: For concentrations exceeding the recommended exposure level, use NIOSH/MSHA approved air purifying respirator. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator. If conditions immediately dangerous to life or health (IDLH) exist, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA).

Eye Protection: Use safety glasses with side shields.

Skin Protection: Use neoprene or nitrile rubber gloves. Use protective garments to prevent excessive skin contact.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

## D. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Do not breathe vapors, mist, fume or dust. Do not swallow, may be aspirated into lungs. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Immediately remove and launder contaminated

clothing before reuse. Wash thoroughly after handling. Use only with adequate ventilation.

Keep away from heat, sparks, and flames. Store in a well-ventilated area. Store in a closed container. Bond and ground during transfer.

## **E. Reactivity Data**

Stability: Stable

Conditions to Avoid: Not Established

Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Not Established

Hazardous Decomposition Products: Carbon oxides and various hydrocarbons formed when burned.

## **F. Health Hazard Data**

### **Recommended Exposure Limits:**

See Section B.

### **Acute Effects of Overexposure:**

Eye: May be mildly irritating to eyes.

Skin: May be mildly irritating to skin.

Inhalation: May cause nausea, headache and sedation.

Ingestion: May be irritating to intestines. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs.

### **Subchronic and Chronic Effects of Overexposure:**

Jet fuel has produced kidney damage in laboratory animals. No comparable kidney damage is known in humans. May cause blood changes possibly leading to aplastic anemia. May cause liver damage. Repeated or prolonged skin contact may be severely irritating to skin.

Contains a compound which has caused reproductive system and embryo/fetal changes in laboratory animals.

### **Other Health Effects:**

Jet Fuels generally contain Benzene has been designated as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), and the Occupational Safety and Health Administration (OSHA). Benzene may produce blood changes which include reduced platelets, reduced red blood cells, reduced white blood cells, aplastic anemia, and acute nonlymphocytic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms. Health effects attributable to Benzene are not known to occur in humans exposed to jet fuels.

**Health Hazard Categories:**

	Animal	Human		Animal	Human
Known Carcinogen	<u>  X  </u>	<u>      </u>	Toxic	<u>      </u>	<u>      </u>
Suspect Carcinogen	<u>      </u>	<u>  X  </u>	Corrosive	<u>      </u>	<u>      </u>
Mutagen	<u>  X  </u>	<u>      </u>	Irritant	<u>  X  </u>	<u>      </u>
Teratogen	<u>      </u>	<u>      </u>	Target Organ Toxin	<u>  X  </u>	<u>  X  </u>
Allergic Sensitizer	<u>      </u>	<u>      </u>	Specify - Liver Toxin; Kidney Toxin;		
Highly Toxic	<u>      </u>	<u>      </u>	Nerve Toxin; Blood Toxin;		
			Lung-Aspiration Hazard;		
			Reproductive-Embryo/fetotoxin;		
			Organ and Function; Teratogens		

**First Aid and Emergency Procedures:**

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Immediately wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If breathing is difficult, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

**G. Physical Data**

Appearance: Colorless Liquid  
 Odor: Mild  
 Boiling Point: > 90F (>32C)  
 Vapor Pressure: 1  
 Viscosity: 1.98 cSt @ 68F (20C)

## H. Fire and Explosion Data

Flash Point (Method Used): 115F (46C) (TCC, ASTM D56)  
Flammable Limits (% by Volume in Air): LEL - 0.7  
UEL - 5.0  
Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO2).

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Wear appropriate safety equipment for fire fighting conditions including NIOSH/MSHA approved self-contained breathing apparatus (SCBA). Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire - product will float and could be reignited on surface of water.

Fire and Explosion Hazards: Carbon oxides and various hydrocarbons formed when burned. Combustible vapors may accumulate and flash or explode if in contact with ignition source.

## I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:

Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in a dry, inert material (sand, clay, etc). Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):  
Incinerate or place in permitted waste management facility.

## J. DOT Transportation

Shipping Name: Fuel, aviation, turbine engine  
Hazard Class: 3 (Flammable liquid)  
ID Number: UN 1863  
Packing Group: III  
Marking: Fuel, aviation, turbine engine, UN 1863  
Label: Flammable liquid

Placard: Flammable/1863  
Hazardous Substance/RQ: Not applicable  
Shipping Description: Fuel, aviation, turbine engine, 3 (Flammable liquid),  
UN 1863, PG III  
Packaging References: 49 CFR 173.150, 173.203, 173.241

## **K. RCRA Classification - Unadulterated Product as a Waste**

Ignitable (D001)

Prior to disposal, consult your environmental contact to determine if the TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

## **L. Protection Required for Work on Contaminated Equipment**

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

## **M. Hazard Classification**

This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

<input checked="" type="checkbox"/> Combustible Liquid	<input type="checkbox"/> Flammable Aerosol	<input type="checkbox"/> Oxidizer
<input type="checkbox"/> Compressed Gas	<input type="checkbox"/> Explosive	<input type="checkbox"/> Pyrophoric
<input type="checkbox"/> Flammable Gas	<input checked="" type="checkbox"/> Health Hazard (Section F)	<input type="checkbox"/> Unstable
<input type="checkbox"/> Flammable Liquid	<input type="checkbox"/> Organic Peroxide	<input type="checkbox"/> Water Reactive
<input type="checkbox"/> Flammable Solid		

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

## **N. Additional Comments**

SARA 313

This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

(See Section B).

Benzene  
2-Methoxyethanol  
Toluene  
p-Xylene  
o-Xylene  
m-Xylene  
1,2,4-Trimethylbenzene

NFPA 704 Hazard Codes - - - - - Signals

Health	: 1	Least	- 0
Flammability:	2	Slight	- 1
Reactivity	: 0	Moderate	- 2
Special Haz.:	-	High	- 3
		Extreme	- 4

Chevron Phillips Chemical Company LP believes that the information contained herein (including data and statements) is accurate as of the date hereof. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE AS CONCERNS THE INFORMATION HEREIN PROVIDED. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and information referred to herein are beyond the control of Chevron Phillips, Chevron Phillips expressly disclaims any and all liability as to any results obtained or arising from any use of the product or such information. No statement made herein shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents.